



001560-377.ST25.txt  
SEQUENCE LISTING

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NAKAYAMA, Toru

<120> GENE ENCODING PROTEIN HAVING AURONE SYNTHESIZING ACTIVITY

<130> 001560-377

<140> US 09/446,089

<141> 1999-12-17

<150> PCT/JP99/02045

<151> 1999-04-16

<150> JP 10/107296

<151> 1998-04-17

<160> 15

<170> PatentIn version 3.0

<210> 1

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<212> DNA

<213> Antirrhinum majus

<220>

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<222> (96)..(1781)

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Met Phe Lys Asn Pro Asn  
1 5

atc cgc tat cac aaa cta tct tcc aaa tcc aat gac aac gat caa gaa 161  
Ile Arg Tyr His Lys Leu Ser Ser Lys Ser Asn Asp Asn Asp Gln Glu  
10 15 20

tcc tcc cat cgt tgt aag cac att cta tta ttt ata ata acc tta ttc 209  
Ser Ser His Arg Cys Lys His Ile Leu Leu Phe Ile Ile Thr Leu Phe  
25 30 35

cta ctt ata gtt ggc ctg tac atc gcc aac tct ctc gcc tat gcc cgg 257  
Leu Leu Ile Val Gly Leu Tyr Ile Ala Asn Ser Leu Ala Tyr Ala Arg  
40 45 50

ttt gcc tcg acc tca acc ggc cct atc gcc gcc cct gat gtc acc aaa 305  
Phe Ala Ser Thr Ser Thr Gly Pro Ile Ala Ala Pro Asp Val Thr Lys  
55 60 65 70

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Cys Gly Gln Pro Asp Leu Pro Pro Gly Thr Ala Pro Ile Asn Cys Cys  
75 80 85

ccc cca atc ccc gct aaa atc atc gat ttc gag cta cca cct ccc tcc 401  
Pro Pro Ile Pro Ala Lys Ile Ile Asp Phe Glu Leu Pro Pro Pro Ser  
90 95 100

act acc atg agg gtt cgc cgt gcg gct cat tta gtt gat gat gca tac 449  
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 395 400 405

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 Pro Lys Val Ser Pro Ser Leu Leu Lys Phe His Arg Thr Asn Thr  
 410 415 420

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 Ala Asn Pro Arg Gln Val Phe Pro Ala Ile Leu Asp Arg Val Leu Lys  
 425 430 435

gtt atc gtg acg agg ccg aag aaa act aga agt agg aaa gaa aag gac 1457  
 Val Ile Val Thr Arg Pro Lys Lys Thr Arg Ser Arg Lys Glu Lys Asp  
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gag tta gaa gag att tta gtg att gaa ggg att gaa ctg gaa aga gac 1505  
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 455 460 465 470

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 65 70 75 80  
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 85 90 95  
 Glu Leu Pro Pro Pro Ser Thr Thr Met Arg Val Arg Arg Ala Ala His  
 100 105 110  
 Leu Val Asp Asp Ala Tyr Ile Ala Lys Phe Lys Lys Ala Val Glu Leu  
 115 120 125  
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 130 135 140  
 Asn Val His Cys Ala Tyr Cys Ala Gly Ala Tyr Asn Gln Ala Gly Phe  
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 Thr Asn Leu Lys Leu Gln Ile His Arg Ser Trp Leu Phe Phe Pro Phe  
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 His Arg Tyr Tyr Ile Tyr Phe Phe Glu Arg Ile Leu Gly Lys Leu Ile  
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 225 230 235 240  
 Asn Tyr Ala Phe Ser Asp Ser Asp Asn Thr Thr Thr Pro Glu Glu Gln  
 245 250 255  
 Met Ile Ile Asn Leu Lys Ile Val Tyr Arg Gln Met Val Ser Ser Ala  
 260 265 270  
 Lys Thr Pro Gln Leu Phe Phe Gly Arg Pro Tyr Arg Arg Gly Asp Gln  
 275 280 285  
 Glu Phe Pro Gly Val Gly Ser Ile Glu Leu Val Pro His Gly Met Ile  
 290 295 300

His Leu Trp Thr Gly Ser Glu Asn Thr Pro Tyr Gly Glu Asn Met Gly  
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 Ala Phe Tyr Ser Thr Ala Arg Asp Pro Ile Phe Phe Ala His His Ser  
 325 330 335  
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 340 345 350  
 Arg Thr Asp Leu Thr Asp Pro Asp Phe Leu Asp Ala Ser Phe Val Phe  
 355 360 365  
 Tyr Asp Glu Asn Ala Glu Met Val Arg Val Lys Val Arg Asp Cys Leu  
 370 375 380  
 Asp Glu Lys Lys Leu Gly Tyr Val Tyr Gln Asp Val Glu Ile Pro Trp  
 385 390 395 400  
 Leu Asn Thr Arg Pro Thr Pro Lys Val Ser Pro Ser Leu Leu Lys Lys  
 405 410 415  
 Phe His Arg Thr Asn Thr Ala Asn Pro Arg Gln Val Phe Pro Ala Ile  
 420 425 430  
 Leu Asp Arg Val Leu Lys Val Ile Val Thr Arg Pro Lys Lys Thr Arg  
 435 440 445  
 Ser Arg Lys Glu Lys Asp Glu Leu Glu Glu Ile Leu Val Ile Glu Gly  
 450 455 460  
 Ile Glu Leu Glu Arg Asp His Gly His Val Lys Phe Asp Val Tyr Ile  
 465 470 475 480  
 Asn Ala Asp Glu Asp Asp Leu Ala Val Ile Ser Pro Glu Asn Ala Glu  
 485 490 495  
 Phe Ala Gly Ser Phe Val Ser Leu Trp His Lys Pro Ile Lys Gly Lys  
 500 505 510  
 Arg Thr Lys Thr Gln Leu Leu Thr Leu Ser Ile Cys Asp Ile Leu Glu  
 515 520 525  
 Asp Leu Asp Ala Asp Glu Asp Asp Tyr Val Leu Val Thr Leu Val Pro  
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 <222> (8)..(8)  
 <223> Amino acid 8 is Xaa wherein Xaa = unknown or other.

<220>  
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 <222> (28)..(28)  
 <223> Amino acid 28 is Xaa wherein Xaa = unknown or other.

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                   20                    25                    30  
 Leu Val Pro His Gly Met Ile His Leu Trp Thr Gly Ser Glu Asn Thr  
                   35                    40                    45  
 Pro Tyr Gly Glu Asn Met Gly Ala Phe Tyr Ser Thr Ala Arg Asp Pro  
                   50                    55                    60  
 Ile Phe Phe Ala His His Ser Asn Val Asp Arg Met Trp Ser Ile Trp  
                   65                    70                    75                    80  
 Lys Thr Leu Gly Gly Pro Arg Arg Thr Asp Leu Thr Asp Pro Asp Phe  
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 Leu Asp Ala Ser Phe Val Phe Cys Asp Glu Asn Ala Glu Met Val Arg  
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 <213> Artificial Sequence

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 <223> Primer

<220>  
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<400> 10

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<210> 11

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<221> misc\_feature

<222> (6)..(18)

<223> Nucleotides 6, 15 and 18 are "n" wherein "n" = a or c or g  
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20

<210> 12

<211> 17

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<213> Artificial Sequence

<220>

<223> Primer

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<221> misc\_feature

<222> (12)..(12)

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or unknown or other

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17

<210> 13

<211> 18

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<213> Artificial Sequence

<220>

<223> Primer

<220>

<221> misc\_feature

<222> (4)..(7)

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t/u or unknown or other

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18

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<211> 20

<212> DNA

<213> Artificial Sequence



<220>

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20

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22